

AMENDMENTS TO THE SPECIFICATION:

Please amend paragraph [0021] as shown below:

[0021] The injection apparatus further includes a cooling member, the cooling member cooling each billet and forming a through hole, the diameter of the through hole being larger than the outside diameter of each billet, the cooling member further including a cooling duct around the through hole. The injection apparatus also includes a second melting cylinder, the diameter of at least a portion of a cylinder bore of the second melting cylinder being greater than the diameter of each billet so as to prevent contact between the billet and the cylinder bore. Additionally, the injection apparatus includes a cooling sleeve disposed between the cooling member and the second melting cylinder, the cooling sleeve forming ~~a circular~~ an annular groove, the annular ~~circular~~ groove cooling the molten metal and generating a ~~circular~~ annular seal of solidified molten material ~~on the molten material~~ on the periphery of each billet.

Please amend paragraph [0029] as shown below:

[0029] The melting device of the injection apparatus contains a cooling sleeve between the second melting cylinder and a cooling member, the cooling member having a hole the inside diameter of which is a slightly larger than the outside diameter of the billet. Most of the cylinder bore of the second melting cylinder is formed to have an inside diameter which does not allow most of the cylinder bore to come into contact with the front end of the billet, and the cooling sleeve has ~~a circular~~ an annular groove which generates ~~a circular~~ an annular seal of solidified matter from said molten metal by cooling it.

Please amend paragraph [0068] as shown below:

[0068] As shown in Figure 4, in a hole formed in the cooling sleeve 212, an annular ~~a circular~~ groove 212a is formed, in which molten metal 3 which has flowed backward along the periphery of the billet 2 is solidified and kept. In the case where billets 2 are comprised of magnesium alloys, the annular ~~circular~~ groove 212a is formed to be 20 mm to 40 mm in width (preferably 30 mm), and 3 mm to 4 mm in depth with respect to the cylinder bore 211a. The inside diameter of a hole 212b of the cooling sleeve 212 at the front side of the annular ~~circular~~ groove 212a is formed to be equal to that of cylinder bore 211a, and the inside diameter of a hole 212c at the back side of the annular ~~circular~~ groove 212a is formed to be equal to that of the through hole 90b.

Please amend paragraph [0069] as shown below:

[0069] Since the annular ~~circular~~ groove 212a is formed in the cooling sleeve 212, which contacts the cooling member 214, the annular ~~circular~~ groove 212a is powerfully cooled by the cooling member 214. The operational effect of the annular ~~circular~~ groove 212a is described in more detail, below. The annular ~~circular~~ groove 212a is formed to be completely contained in the cooling sleeve 212, as shown in Figure 4, but it may be formed to have a contact with either side of the melting cylinder 211 or the cooling member 214.

Please amend paragraph [0071] as shown below:

[0071] Moreover, the cooling sleeve 212 has no problem in stiffness, despite being made of a small volume member, as illustrated, specifically a comparatively thin cylindrical member. That is because a circular solidified material 201, which is formed in the ~~[[.]]~~ annular ~~circular~~

groove 212a as described below, prevents molten metal 3 from leaking backward beyond the circular solidified material 201 and thus suppresses high pressure.

Please amend paragraph [0083] as shown below:

[0083] On the other hand, in the second embodiment, molten metal 3 is not sealed by the above-described enlarged diameter seal member, but rather is sealed by a circular solidified material seal which is the solidified matter of molten metal 3 in the annular ~~circular~~ groove 212a of the cooling sleeve 212. The seal of the circular solidified material seal is described below.

Please amend paragraph [0084] as shown below:

[0084] In the case of magnesium alloys, the billet 2 in the cooling sleeve 212a is controlled to be at about 400°C, which is near its softening temperature, by being powerfully cooled by cooling sleeve 212. In this condition, when the injection apparatus 1 first commences its preparatory injection molding operation, the billet 2 advances at a slow speed, as is described below. The molten metal 3, which has already melted at the front end of the melting cylinder 211, flows backward along the billet 2, filling up the annular ~~circular~~ groove 212a, and changing into solidified matter. This solidified matter, as the circular solidified material 201, has includes the below-listed characteristics.

Please amend paragraph [0085] as shown below:

[0085] Since the circular solidified material 201 is the solidified material of molten metal 3 that follows the shape of the space between the annular ~~circular~~ groove 212a and the billet 2, it fills the periphery space of the billet 2 with no gaps even if there exists a slight eccentricity of the

billet 2 with the melting cylinder 211. Since much of the circular solidified material 201 is fitted in the annular ~~circular~~ groove 212a in the solidified state, the circular solidified material 201 neither advances with the billet 2 nor breaks down, due to the pressure of molten metal at the time of measuring process. Consequently, the circular solidified material 201 does not move backwards beyond annular ~~circular~~ groove 212a.